

PURCHASE DESCRIPTION

X-Y RECORDER

RXONT-B

1.0 GENERAL This procurement requires a high performance X-Y recorder with analog inputs and IEEE-488 control of all plotter/recorder functions.

2.0 CLASSIFICATION The equipment shall meet the requirements of MIL-T-28800(), Type III, Class 5, Style E, Color R for Navy shipboard, submarine, and shore applications with the following modifications and exceptions:

- a. The relative humidity requirement is limited to 95% non-condensating.
- b. The operating and non-operating altitude requirement is not invoked.
- c. The Electromagnetic Interference requirements of MIL-T-28800() are limited to CE01, CE03, CS01, CS02 (0.05 to 100 MHz), CS06, RE01 (back panel search excluded), RE02 (14 kHz to 1 GHz), and RS03.

3.0 OPERATIONAL REQUIREMENTS

3.1 Main Frame

3.1.1 Paper Size: A4/A (8.5 in x 11 in) and A3/B (11 in x 17 in)

3.1.2 Paper Holddown: Electrostatic type or pinch rollers

3.1.3 Pens: Fiber tipped, fast drying, disposable

3.1.3.1 Pen Lift: Local and remote control

3.1.4 Zero Offset: \pm Full scale

3.1.5 Writing Speed:

3.1.5.1 Direct Mode: At least 50 in/sec

3.1.5.2 Plotting Mode: At least 30 in/sec

3.2 Inputs

3.2.1 Channels: 3 (2 vertical; 1 horizontal)

3.2.1.1 Connection type: Floating

3.2.1.2 Input Impedance: 1 M Ω or greater

3.2.2 Sensitivity: At least 5 mV to 100 V full scale

3.2.3 Accuracy: \pm 0.3% of full scale or better

3.2.4 Common Mode Rejection: > 120 dB (dc); > 100 dB (ac)

3.3 Time Base (Plot input vs time)

3.3.1 Range: At least 1 sec to 24 hrs full scale

3.3.2 Accuracy: At least $\pm 0.2\%$ of full scale

3.3.3 Linearity: At least $\pm 1.0\%$ of full scale

3.3.4 Real-time Clock: Clock indicating a minimum of hours, minutes, and seconds

3.3.4.1 Controls: Settable from front panel

3.3.4.2 Battery: Lithium (provides backup power for clock when AC power is removed)

3.3.4.3 Accuracy: ± 5 sec/day max time error

3.4 Digital Voltmeter (DVM): Measures voltage level of selected channel

3.4.1 Display: At least 3 digits (floating point)

3.4.2 Sample Rate: At least once/sec

4.0 GENERAL REQUIREMENTS

4.1 Power: 115/230 Vac $\pm 10\%$, 50/60 Hz, 150 W maximum

4.2 Dimensions: (W) 635 mm; (D) 508 mm; (H) 254 mm (25 in x 20 in x 10 in) maximum

4.3 Weight: 16 kg (35.2 lbs) maximum

4.4 Calibration Interval: The calibration interval shall be 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with a 72% or greater confidence factor following a calibration interval of 12 months.

4.5 Remote Control: All recorder and plotting functions shall be controllable via the IEEE-488 instrumentation bus.